

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An image processing system comprising:

a storage component in which information indicating a rate of occurrence of a pupil region having undesirable color tone, which information is obtained by correcting the undesirable color tone of the pupil region for an image in which the pupil region corresponding to the pupil of an eye of a human subject and having undesirable color tone exists among a large number of images obtained by photographing the subject using a photographing device, is stored for each type of photographing device; and

an image processor,

wherein the image processor includes:

a detecting component which detects the type of the photographing device of an image to be processed, which image is obtained by photographing the subject using the photographing device;

an acquisition component which acquires, from the storage component, information corresponding to the type of the photographing device detected by the detecting component; and

a processing component which, when it is determined that the probability that the pupil region having undesirable color tone exists in ~~an~~the image to be processed is a predetermined value or more based on the information acquired by the acquisition component, carries out searching for the pupil region having undesirable color tone in the image to be processed, and processing for correcting undesirable color tone of the pupil region extracted by the searching.

2. (original): The image processing system of claim 1, wherein:

the storage component further stores therein information which indicates a correction parameter determined so as to correct undesirable color tone of the pupil region for the image in which the pupil region having undesirable color tone exists, for each type of photographic device; and

the processing component determines, based on the information which indicates the correction parameter acquired by the acquisition component, a correction parameter applied to correction of undesirable color tone in the pupil region extracted from the image to be processed.

3. (currently amended): The image processing system of claim 1, wherein the storage component is connected to a plurality of image processors via a communication line, and stores therein information obtained in ~~such a manner that~~ response to a correction of an undesirable color tone in the pupil region for ~~an~~ the image in which the pupil region having undesirable color tone exists is carried out by each of the plurality of image processors.

4. (currently amended): The image processing system of claim 1, wherein the undesirable color tone is one of a red eye effect and a gold eye effect, ~~which occurs in the pupil region of an image in such a manner that, when a human subject is photographed in a full-faced manner using electronic flash light, the electronic flash light is made incident from the front side and regularly reflected by the eye portions of the human subject whose pupils are dilated in the~~ dark.

5. (currently amended): An image processing apparatus comprising:
a detecting component which detects the type of a photographing device in an image to be processed, which image is obtained by photographing a subject using the photographing device;

an acquisition component which acquires information corresponding to the type of the photographing device detected by the detecting component, from a storage component in which information ~~which~~that indicates a rate of occurrence of a pupil region having undesirable color tone, which information is obtained by correcting undesirable color tone of the pupil region for an image in which the pupil region corresponding to the pupil of an eye of a human subject and having undesirable color tone exists among a large number of images obtained by photographing the subject using a photographing device, is stored for each type of photographing device; and

a processing component which, when it is determined that the probability that the pupil region having undesirable color tone exists in ~~an~~the image to be processed is a predetermined value or more based on the information acquired by the acquisition component, carries out searching for the pupil region having undesirable color tone in ~~an~~the image to be processed and processing for correcting undesirable color tone of the pupil region extracted by the searching.

6. (original): The image processing apparatus of claim 5, wherein:

the storage component further stores therein information which indicates a correction parameter determined so as to correct undesirable color tone of the pupil region for the image in which the pupil region having undesirable color tone exists, for each type of photographic device; and

the processing component determines, based on the information which indicates the correction parameter acquired by the acquisition component, a correction parameter applied to correction of undesirable color tone in the pupil region extracted from the image to be processed.

7. (currently amended): The image processing apparatus of claim 5, wherein the undesirable color tone is one of a red eye effect and a gold eye effect, ~~which occurs in the pupil region of an image in such a manner that, when a human subject is photographed in a full-faced~~

~~manner using electronic flash light, the electronic flash light is made incident from the front side and regularly reflected by the eye portions of the human subject whose pupils are dilated in the dark.~~

8. (currently amended): An image processing method comprising:

storing, each time a correction parameter is determined in red eye correction processing for correcting color tone of a red eye region, which processing is carried out by an operator for an image in which the red eye region exists, a rate of occurrence of the red eye region, and the correction parameter as red-eye correction historical information for each type of camera used for photographing the image;

making a determination as to whether the accuracy of the red-eye correction historical information is a fixed level or more; and

if the red-eye correction historical information is at the fixed level or more, recognizing the type of the camera used for photographing an image to be processed, and determining the rate of occurrence of the red eye region based on the red-eye correction historical information corresponding to the recognized camera type, and for an image in which it is determined that the rate of occurrence of the red eye region is high, searching for the red eye region and automatically determining a correction parameter for the red eye region,

wherein the red eye region is a pupil region corresponding to the eyes of the human subject and having undesirable color tone.

9. (currently amended): An image processing method comprising the steps of:

storing, in a storage component, information which indicates a rate of occurrence of a pupil region having undesirable color tone, which information is obtained by correcting undesirable color tone of the pupil region for an image in which at the pupil region corresponding

to the eye of a human subject and having undesirable color tone exists among a large number of images obtained by photographing the subject using a photographing device, for each type of photographing device; and

detecting the type of the photographing device of an image to be processed, which image is obtained by photographing a subject using the photographing device;

acquiring information corresponding to the detected type of the photographing device, among information stored in the storage component; and

when it is determined that the probability that the pupil region having undesirable color tone exists in ~~an~~the image to be processed is a predetermined value or more based on the information acquired from the storage component, searching for a pupil region having undesirable color tone in the image to be processed and correcting undesirable color tone of the pupil region extracted by the searching.

10. (currently amended): The image processing method of claim 9, further comprising the steps of:

determining a correction parameter for the image in which the pupil region having undesirable color tone exists among a large number of images, and correcting undesirable color tone of the pupil region using the determined correction parameter, and further storing information indicating the determined correction parameter in the storage component for each type of photographing device; and

based on the information indicating the correction parameter and acquired from the storage component, determining a new correction parameter applied to correction of undesirable color tone in the pupil region extracted from the image to be processed.

11. (original): The image processing method of claim 9, wherein in the correction of undesirable color tone in the pupil region for the image in which the pupil region having undesirable color tone exists among the large number of images, at least one of a determination as to whether the pupil region having undesirable color tone exists or not, and a determination of a correction parameter for correcting undesirable color tone of the pupil region is carried out by an operator.

12. (original): The image processing method of claim 9, wherein the storage component is connected to a plurality of image processors via a communication line, and stores therein information obtained in such a manner that correction of undesirable color tone in the pupil region for an image in which the pupil region having undesirable color tone exists is carried out by each of the plurality of image processors.

13. (currently amended): The image processing method of claim 9, wherein the undesirable color tone is one of a red eye effect and a gold eye effect, ~~which occurs in the pupil region of an image in such a manner that, when a human subject is photographed in a full-faced manner using electronic flash light, the electronic flash light is made incident from the front side and regularly reflected by the eye portions of the human subject whose pupils are dilated in the dark.~~

14. (currently amended): A computer-readable storage medium storing a data-signal embodied in a carrier wave, ~~the data-signal representing a control program that is readable by a controller of an image processing apparatus, the control program including instructions to:~~

store, in a storage component, information which indicates a rate of occurrence of a pupil region having undesirable color tone, which information is obtained by correcting undesirable color tone of the pupil region for an image in which athe pupil region corresponding to the eye of

a human subject and having undesirable color tone exists among a large number of images obtained by photographing the subject using a photographing device, for each type of photographing device; and

detect the type of the photographing device in an image to be processed, which image is obtained by photographing a subject using the photographing device;

acquire information corresponding to the detected type of the photographing device among information stored in the storage component; and

when it is determined that the probability that the pupil region having undesirable color tone exists in ~~an~~the image to be processed is a predetermined value or more based on the information acquired from the storage component, search for a pupil region having undesirable color tone in the image to be processed and correct undesirable color tone of the pupil region extracted by the searching.

15. (currently amended): The data signal of claim 14, wherein the data signal is embodied in a carrier wave that is stored in a recording the computer-readable storage medium.

16. (new): An image processing apparatus comprising:

a storage section storing information in association with a camera used for photographing a subject, wherein

said information comprises:

a number of images for which an electronic flash was used during photographing of the subject;

a number of times of selecting a processing mode;

a number of times of selection of each of a plurality of correction levels used for correcting an undesirable color tone; and

a rate of occurrence of a red-eye effect in the number of images, wherein
means for correcting a red-eye effect in a new image taken by a camera based on
said information.

17. (new): The image processing apparatus of claim 16, wherein a rate of occurrence of
the red-eye effect is based on a ratio of the number of times of selecting a processing mode and
the number of images for which an electronic flash was used.

18. (new): An image processing system comprising:
means for storing information indicating a rate of occurrence of a pupil region having
undesirable color tone, which information is obtained by correcting the undesirable color tone of
the pupil region for an image in which the pupil region corresponding to the pupil of an eye of a
human subject and having undesirable color tone exists among a large number of images
obtained by photographing the subject using a photographing device, is stored for each type of
photographing device; and

an image processor,

wherein the image processor includes:

a detecting component which detecting the type of the photographing device of an image
to be processed, which image is obtained by photographing the subject using the photographing
device;

an acquisition component which acquires, from the storage component, information
corresponding to the type of the photographing device detected by the detecting component; and

means for determining a probability that the pupil region having undesirable color tone
exists in the image to be processed based on the information acquired by the acquisition
component, and carrying out searching for the pupil region having undesirable color tone in the

image to be processed if the probability is a predetermined value or more, and processing for correcting undesirable color tone of the pupil region extracted by the searching.